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External Surgery of the Nose.

BY ✓

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EXTERNAL SURGERY OF THE NOSE.

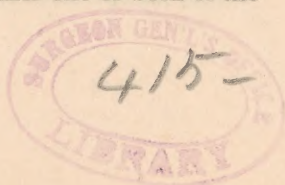
ILLUSTRATED WITH PHOTOGRAPHS.

It would be the height of impropriety for me to attempt to bring the entire subject of external surgery of the nose before you for discussion within the time allotted me for that purpose. The mere mention of the various operations for the removal of necrosed bone, foreign bodies or the various kinds of tumors, from within the nasal cavity, would consume time and cause confusion, so that my remarks will be confined to the report of cases operated upon for the restoration of the nasal prominence obliterated by the causes hereinafter named.

I wish also to refer to the different methods of making this restoration.

There may be deformity, or partial or total destruction of either the hard or soft parts, or both, of this the most prominent facial feature. In the first instance, the alæ alone or with the septum may be absent; in the second, the integument may be wanting; while in the third, the integument, cartilaginous and osseous structures may all be gone.

The greatest difficulty is encountered when the alæ nasi or nasal bones are destroyed, especially the latter, as depression of the ridge is sure to follow; but if the triangular cartilaginous septum be present, this difficulty may be overcome, even though one-half of either one or both of the



nasal bones be absent. Should the bony and cartilaginous septum together with the nasal bones be wanting, then, and not until then should the the transplanting or implanting of osseous tissue be resorted to. When the ala nasi alone or with the septum is absent, I consider that they may best be restored by tissue taken from the cheeks, also when the entire integument is wanting. However, it might be best in the case of women to substitute tissue taken from the arm or forehead. In the latter case the hair could be worn in such a way as to conceal any scar that might result.

With me it is a great question whether the integument of the forehead, with or without the external table of frontal bone, should ever be disturbed for this purpose, especially when the patient is a woman who is to be associated extensively with various people. If, as in the third class, the integument, cartilaginous and osseous tissues are gone, then further consideration would be necessary, such as transplanting or implanting osseous tissue, or utilizing a section from either one or both superior maxillæ.

All measures should be used, if necessary, to avoid occlusion of the nares, as a free nostril is one of the desirable results of the operation.

The causes of any amount of destruction are many, being classed as syphilitic, malignant, tubercular, traumatic, congenital, and I would add perverted tooth development. Whatever the cause or degree of destruction, all operative procedures should be postponed until necrotic changes cease to occur, all of which may be hastened by means of the curette, gouge or chisel. If the patient be a syphilitic, an operation should be preceded by a thorough course of mercury or the iodides; otherwise an operation may be made soon after re-

moving diseased tissue, as in malignant disease, in which case it should be made immediate and radical.

Unlike many operations, each case requiring a rhinoplasty is peculiar to itself, and its favorable result is dependent upon the good judgment of the operator.

The per cent. of cases in which it is desirable to make rhinoplasties, is very small as compared with other operations. This, together with the comparatively few opportunities each operator has during his surgical career, makes it difficult for any one to establish rules, or be dogmatic in his assertions. However, there are quite a number of neglected cases throughout the country, and each man can contribute interesting personal experiences, that will in the aggregate tend to place the more radical operations upon a higher plane, especially now that so much is being done in transplanting and implanting osseous and cartilaginous tissue. We may expect in this, as in many other branches of surgery, better results than have heretofore been secured.

Case 1. — Miss —, colored, æt. 21, was referred to me during the spring of 1888 by Dr. B. K. Rachford, and was in a fair physical condition. She stated that a small sore appeared upon the tip of the nose a little to the right of the median line, about three years previous, which gradually increased in size until the entire upper lip and nasal alæ were covered with a phagedenic ulcer having somewhat the characteristics of an epithelioma, for which it had been treated by several physicians. Although there could be found no history of either hereditary or acquired syphilis, I gave her $\frac{1}{4}$ gr. of protiodide of mercury after each meal. At the end of twenty-five days the crusts were gone and the ulceration healed, after

having destroyed the entire right ala nasi with a portion of the left, and one-half of the triangular cartilaginous septum. About this time I had an opportunity to examine the mother, whose face I found disfigured with syphilitic cicatrices which had existed, as she stated, for twenty-four years. Thus we have almost every evidence that the cause was hereditary syphilis. She continued to take iodide of potassium and mercury until the following December, when I operated in my private hospital (the Trinidad), by attaching a pedunculated graft from her right arm. Owing to displacement of the arms the stitches on one side were torn out, causing the operation to be but a partial success; however, the flap grew upon the side remaining sutured, so that at least two-thirds of the restoration was accomplished. During the next six weeks I was ready to complete my work, when she was seized with typhoid fever and sent home, where she died on the twenty-first day of the disease.

Case 5.—Mr. —, æt. 24, robust and temperate, came under my care during the winter of 1888–89. There was complete depression of the soft parts, indicating the total destruction of the cartilaginous and bony septum, together with vomer, turbinated bones, hard palate and inner surface of superior maxillæ. There was a foul odor, and an examination revealed the presence of diseased bone, but the two nasal bones were intact. At the age of 14 years his nose was perfect in shape, but at 17 he noticed a slight offensive discharge which gradually became more profuse and obnoxious. There was soon a slight depression in the centre of the nasal ridge, which also grew deeper, so that at the age of 20 there was general depression, and it has become greater and greater ever since. On two different occasions I removed

necrosed bone, the last time (May, 1889) making it complete. The total destruction of the bones led me seriously to consider the propriety of implanting or transplanting osseous tissue. However, I decided to give him the benefit of that much cherished doubt, by first taking a flap from each cheek, knowing that bone grafting could more easily be accomplished after this had been done.

The substitution of the breast bone of a fowl, the femur or humerus of the rat, guinea-pig, squirrel or rabbit, for the outer table of the frontal bone, the elevation of a piece of each superior maxillary bone so as to form a rafter, as in the gable of a house, all were before me, each presenting its advantages and disadvantages. Then too, the operation which consists in taking integument from the forehead was considered, also that of utilizing tissue from the arm, but I felt assured that my first impression was best, namely: to take the tissue from the cheeks. This I did, after keeping him upon mercury and the iodides for several months.

The history was vague, there being no indication of either hereditary or acquired disease. Not until eight months after did I see his mother, who consulted me with reference to a sore upon the leg, of fourteen years' duration. I suspected it of being of specific origin and gave her $\frac{1}{16}$ gr. of bichloride of mercury, together with 15 grs. of iodide of potassium after each meal. This seemed to be the keynote to the problem, as the ulcer immediately began to improve and finally disappeared. I was soon satisfied that the young man's source of infection was through the mother.

Case 7.—Mr. K., æt. 69, in a good physical condition, sent to me by Dr. B. P. Goode, July 6, 1889. There was a papillomatous growth about the

size of a wren's-egg situated upon the under surface of the point of the nose, a little to the right of the median line, which appeared about six weeks previous to his visit to me. Its development was gradual, with elongated and hypertrophied papillæ that were easily separated; when this was done, however, a slight capillary hæmorrhage would occur. The lower half of the nose was hypertrophied, softened, and covered with numerous broad and deep sebaceous follicles, which condition aided materially the rapid and destructive development of an epithelioma, such as the microscope proved the growth to be.

I advised amputation, and replacement of tip and entire nasal integument, which was done on August 4, 1889, at the German Protestant Hospital. I made an incision on each side including the alæ, afterward dividing the cartilaginous septum, I dissected up the skin to a line parallel with the eyes. A flap $1\frac{1}{2}$ inch wide was taken from each cheek, with pedicle at inner canthus, and brought to the median line, united with silk and allowed to rest upon the remaining septum. The nose was, however, shortened about $\frac{3}{16}$ of an inch, as is shown in the photograph. This was due to the patient being a male, and having a great amount of hair upon the upper lip, it would have been necessary to extend the incision farther down the cheeks to cover the full length of the septum, and in such an event the nose would have been covered with a part of his moustache—an event not to be expected in the case of women. Thus it is seldom that the conditions are the same with men as with women.

There is no cicatrix to be seen, nor drawing of the eyelids or lips, while the labio-buccal fold conceals the line of incision, so that it would be difficult to determine by careful examination the

source from which the flaps were taken. It is now ten months since the operation, and no indication of a return of the disease. He has nasal respiration and suffers no discomfort except slight tenderness at times over the ridge. His facial appearance is by far better now than before either the operation or appearance of the disease.

Case 9.—Mrs. —, æt. 70, fair health, has suffered with lupus vulgaris of right ala nasi for eight years. The entire cartilaginous margin was destroyed, and the disease gradually encroached upon the surrounding structures. She was operated upon in the German Protestant Hospital by removing the integument of the diseased side and replacing with a flap taken from the corresponding cheek, its pedicle being attached from above, as there would be less deformity from cicatricial tissue than when attached from below. Then too, there were no hairs upon the cheek and upper lip to contend with, as would have been the case in a man. There is quite an ugly scar upon the cheek when the pedicle is attached from below, while that from above leaves the line of incision concealed within the labio-buccal fold. She made a rapid and favorable recovery with a niche to be seen, showing that the flap was rather short. I discovered this error immediately after the flap was taken, but decided to take my chances in securing union, which did not take place throughout. At her age she does not care to have the slight defect remedied.

Case 11.—Miss —, æt. 22, of excellent physique, was referred to my clinic at Miami Medical College by Dr. L. Colter, April 8, 1890. That portion of the nasal ridge corresponding to the cartilaginous septum was destroyed, and the tip of the nose was thrown back so that it pointed upward and outward at an angle of 45° to a hor-

izontal plane of the face. Further examination revealed the absence of the bony septum, vomer and turbinated bones, the inner or nasal side of superior maxillæ remaining. There was a discharge, mild in its offensiveness, which had made its appearance at the age of 16 years, the first indication that disease was present. This gradually became more profuse and offensive, until all the nasal structures were destroyed. The two nasal bones, however, remained intact. There were no indications of syphilis, either from my own examination or her own statement, so that the cause of the necrosis was indeed obscure. Reflected light revealed the presence of a hard white body which was supposed, as I was informed, to be bone.

I determined to operate at once and restore the nasal body, with a flap taken from each cheek. I sent her to Christ's Hospital and operated April 16, 1890. I began by transfixing the alæ at the point of greatest depression, which divided the parts equally in a perpendicular line, and finished my incision by cutting upward. This done, I drew down the lower portion and explored the nasal cavity with my index finger. I found no diseased bone present, but my finger came in contact with some foreign body evidently not bone, yet I was uncertain as to what it was. It lay along the floor of the palatal process of the superior maxillæ and extended backward and to the left, and was so firmly imbedded that it was exceedingly difficult to remove it, which I did with the bone curette, not having forceps with which I could grasp it firmly enough to dislodge it.

Having done this much, the cavity was perfectly smooth and free from any obstacle that would suggest further interference, so from each cheek I cut a flap $1\frac{1}{4}$ inch, leaving a pedicle $\frac{3}{8}$

inch wide at naso-frontal margin. The inner borders were brought to the median line and there sutured with fine catgut, the lower portion having previously been drawn down so that the point of the nose was in about its normal position; the flaps now filled the space thus formed by this manoeuvre, and the remaining free margins were sutured to the lower section of the nose. Due allowance was made in cutting the flaps for the contraction of the tissue, so that at first there seemed to be a redundancy of tissue. The edges of the wounds made in the cheeks were now brought together and healed very nicely by first intention; only a small spot was left to granulate on either side.

This case presents the most novel features of all I have had or heard of, in that the presence of the tooth is most likely the cause of necrotic changes. She has all of her upper teeth with the exception of the left canine, in a most excellent state of preservation. The germ tooth being present did not fail to assert its right to development (one of the strongest instincts of Nature), and in doing so, encroached upon already occupied territory. Dentine being harder and of greater vitality than bone gained the victory, leaving its dead within the nasal cavity to be removed as Nature saw best, which was by the usual process—decay.

Had I a parallel case, I should utilize a section from each superior maxillary bone in connection with what has been done in this case; not that I would expect a better primary result, but that I would be better able to judge the efficacy of such an operation.

CONCLUSION.

In conclusion I would say that from general

and personal observation, I am fully aware of our shortcomings in the treatment of malignant diseases of the nose.

In many cases amputation of diseased tissue, extirpation of diseased bones entire, or excision of merely the necrosed bone should be made, and the soft parts replaced by one of the foregoing methods, and this should be done, too, at the earliest possible date. This restoration of the soft parts by flaps taken from the cheek or cheeks, is the method to receive *first* consideration. The method of taking the flap from the arm should be *secondly* considered, and from the forehead *thirdly* considered. This is the order of value of the three methods.

Silk is the only material to be used in suturing the soft parts, and silver wire for suturing the bony parts.

When bony restoration is to be made, the sections should be taken from the nasal border of each superior maxillary bone in preference to being taken from the frontal bone, from the hand, or from the lower animals. It is from this method that the greatest successes of the future are to come.

No case of partial or total absence of the nasal prominence should be allowed to go uncared for, and exploratory incisions should be made in all cases of obscure conditions of the nasal cavity, due to whatever cause, for by resorting to the various lines adopted for incisions, to turn the nose aside, no deformity or serious consequences follow.

The operations of Rouge, Olliver, Maisonneuve, Dieffenbach, Cheever, Langenbeck, Péan, and Bruns, are all familiar to you, gentlemen, and will serve as guides to decide many obscure and difficult problems for you.

Upon examination of the oral cavity, in any

necrosis of the nasal bones with pain, care should be taken to discover whether any tooth has failed to appear; if so, be on your guard, for if that tooth has taken an upward growth, it may rarely be the cause of nasal deformity.

Lastly, I would most earnestly invite more general experimentation with the various kinds of grafting, from tissue of some of the lower animals.

